



UNITED STATES PATENT AND TRADEMARK OFFICE

52

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/514,577	02/28/2000	Fang Wu	3871	9020

22434 7590 04/06/2004
BEYER WEAVER & THOMAS LLP
P.O. BOX 778
BERKELEY, CA 94704-0778

EXAMINER

JONES, PRENELL P

ART UNIT	PAPER NUMBER
----------	--------------

2667

DATE MAILED: 04/06/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/514,577

Applicant(s)

WU ET AL.

Examiner

Prenell P Jones

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15 and 18-23 is/are allowed.
- 6) ☒ Claim(s) 16, 17, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kidder in view of Choi et al, Kaye et al and Assuncao.

Art Unit: 2667

Regarding claim 16, Kidder discloses processing video/audio data and channels, (col. 5, line 25 thru col. 6, line 47, col. 7, line 5-59) sum of the bit-rates equal the maximum effective transmission bandwidth (channel capacity) and multiple audio/visual channels and associated bit streams. Kidder is silent on determining if the sum of bit rates is greater than channel capacity and reducing bit rate if for a selected channel if the selected channel has a bit rate greater than the minimum bit rate for the channel and re-encoding, and reducing bit-rate by re-encoding channels. In analogous art, Choi discloses (Abstract, col. 1, line 59 thru col. 3, line 41, col. 5, line 7-21, col. 6, line 7-67) a encoding multiple video programs wherein there exists a sum of the bit rates of multiple the video programs (channel signals), bit-streams at a high bit rate produces many cell losses, use efficiency of channel is decreased, sum of bit rates of video programs has to be less than channel bandwidth (channel capacity), sum of bit rates has to be larger than the CBR (selective channel) channel bandwidth, if sum of bit rate is larger than CBR channel bandwidth (selective channel) information is loss, Keesman discloses (Abstract) video signal encoding associated with multiple video channels, (col. 3, line 24 thru col. 6, line 35) maximum/minimum bit rate associated with selected channel and varying bit rates, and Assuncao discloses (Abstract, col. 3, line 19-67, col. 5, line 28-57, col. 6, line 1-67) improving transmission of digital information that includes trans-coding video digital packet video streams, trans-coding a plurality of packet streams, adjusting bit-rate, performing re-encoding for the purpose of fully decoding input bit streams and eventually encodes stream to a lower bit-rate. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have been motivated to

Art Unit: 2667

implement varying/adjusting bit rates of selected channels associated in a multiple video channel environment with respect to re-encoding techniques as taught by Assuncao with the combined teachings of Kidder, Choi and Kaye for the purpose of managing the transmission/processing of data and to reduce/minimize/eliminate cell loss which inadvertently provides for a clear video image video data.

Regarding claim 24 and 25, as indicated above, Keesman discloses (Abstract) video signal encoding associated with multiple video channels, (col. 3, line 24 thru col. 6, line 35) maximum/minimum bit rate associated with selected channel and varying bit rates. He further discloses (col. 3, line 46 thru col. 6, line 35) selection of packets and associated bit rates and packet selection calculation associated with packets per buffer (table), scheduled buffer size (table size) and total bandwidth.

4. Claims 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kidder in view of Choi et al, Keesman et al and Assuncao as applied to claim 16 above, and further in view of Quay et al.

Regarding claim 17, as indicated above, Kidder discloses processing video/audio data and channels, (col. 5, line 25 thru col. 6, line 47, col. 7, line 5-59) sum of the bit-rates equal the maximum effective transmission bandwidth (channel capacity) and multiple audio/visual channels and associated bit streams, Choi discloses (Abstract, col. 1, line 59 thru col. 3, line 41, col. 5, line 7-21, col. 6, line 7-67) a encoding multiple video

Art Unit: 2667

programs wherein there exists a sum of the bit rates of multiple the video programs (channel signals), bit-streams at a high bit rate produces many cell losses, use efficiency of channel is decreased, sum of bit rates of video programs has to be less than channel bandwidth (channel capacity), sum of bit rates has to be larger than the CBR (selective channel) channel bandwidth, if sum of bit rate is larger than CBR channel bandwidth (selective channel) information is loss, Keesman discloses (Abstract) video signal encoding associated with multiple video channels, (col. 3, line 24 thru col. 6, line 35) maximum/minimum bit rate associated with selected channel and varying bit rates, and Assuncao discloses (Abstract, col. 3, line 19-67, col. 5, line 28-57, col. 6, line 1-67) improving transmission of digital information that includes trans-coding video digital packet video streams, trans-coding a plurality of packet streams, adjusting bit-rate, performing re-encoding for the purpose of fully decoding input bit streams and eventually encodes stream to a lower bit-rate. Kidder, Choi, Keesman and Assuncao are silent on scheduling data for transmission. In analogous art, Quay discloses (Abstract, col. 3, line 18 thru col. 4, line 67) scheduling and processing data associated with an ATM system regardless of data type (i.e., voice, data or video), (col. 10, line 13-67) sum of bit rate of the total bandwidth (channel capacity), scheduling of bandwidth/channels, and (col. 12, line 28-67) channels scheduled according to time-stamps for ATM transmission. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be been motivated to implement scheduling data for transmission with respect in a multiple video channel environment as taught by Quay with the combined teachings of Kidder, Choi, Keesman and

Art Unit: 2667

Assuncao for the purpose of managing the transmission/processing of data and to reduce/minimize/eliminate contention in a video communication environment.

Allowable Subject Matter

5. Claims 1-15 and 18-23 are allowed over prior art.
6. The following is a statement of reasons for the indication of allowable subject matter: As indicated in the previous office action claims 1-15 contain allowable subject matter, and claims 18-23 were objected to but would be allowed if rewritten in independent form. Applicant has amended claims 18, 19 and 22 to read as independent claims, therefore claims 18-23 are in condition for allowance.

Although the prior art teaches Kidder discloses processing video/audio data and channels, sum of the bit-rates equal the maximum effective transmission bandwidth and multiple audio/visual channels and associated bit streams, a encoding multiple video programs wherein there exists a sum of the bit rates of multiple the video programs (channel signals), bit-streams at a high bit rate produces many cell losses, use efficiency of channel is decreased, sum of bit rates of video programs has to be less than channel bandwidth, sum of bit rates has to be larger than the CBR (selective channel) channel bandwidth, if sum of bit rate is larger than CBR channel bandwidth (selective channel) information is loss, video signal encoding associated with multiple video channels, maximum/minimum bit rate associated with selected channel and varying bit rates, adjusting bit-rate, performing re-encoding for the purpose of fully

decoding input bit streams and eventually encodes stream to a lower bit-rate, scheduling and processing data associated with an ATM system regardless of data type sum of bit rate of the total bandwidth (channel capacity), scheduling of bandwidth/channels, and channels scheduled according to time-stamps for ATM transmission they fail to teach/suggest determining whether there is another channel bit rate greater than its minimum and performing rate conversion if there is no channels having a bit rate greater than its minimum, determining whether the selected channel has a bit rate close to the minimum bit rate for the channel and increasing the bit rate for the channel if it is determined that the selected channel has a bit rate close to the minimum bit rate for the channel, at least one of the plurality of channels of bit streams is a data stream that is buffered and not recoded.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2667

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 703-305-0630. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

March 31, 2004




CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

4/2/04